aurender

REFERENCE MUSIC SYSTEMS

# X100L / X100S

## High Resolution Music Server and Player

## User Guide

New features and improvements are regularly implemented through upgrades via the Internet.
Details of the latest upgrades can be found in the online version of the user guide at

**www.aurender.com**

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* iPad is a trademark of Apple Inc.

## Two Year Warranty

The warranty period for Aurender Music Servers is two years including parts and labor. The warranty is non-transferable and excludes damage due to (i) normal wear and tear, (ii) abuse, misuse, or neglect, (iii) repair, attempted repair, or any modifications by anyone not authorized by TVLogic or its distributors. After inspection, TVLogic will at its discretion repair, adjust or replace the product free of charge. Users are responsible for shipping the products to TVLogic or an authorized service center, and Widealab will pay for return shipping provided the repair is under warranty. Aurender Music Servers are automatically registered when first logged onto the Internet. Only the serial number, date and IP address are recorded for warranty purposes.

For any technical support issues, please contact support@aurender.com

## iPad, Wireless Router, Internet, D/A Converter, Cables

The iPad is the user interface for Aurender Music Servers and a wireless router is needed to connect the iPad to the Aurender Music Server. An Internet connection is needed to update software and for remote support, if needed. A digital-to-analog converter is needed to convert digital signal to an analog signal.

## Box Contents

Aurender X100 AC Power Cord

## Instructions

Please read the instructions carefully before setting up the Aurender Music Server.

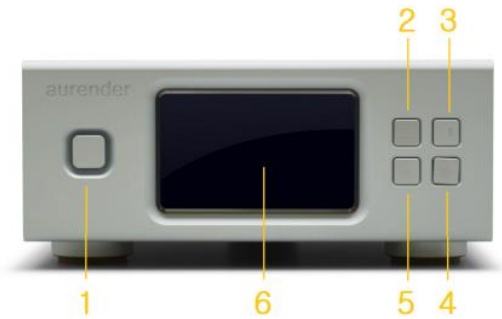
1. Be careful not to drop the device to avoid internal damage.
2. Do not disassemble the device.
3. Keep magnetic materials away from Aurender to prevent data damage.
4. Do not expose device to oil, dust, water, high humidity, or smoke.
5. Keep ventilation openings free from obstruction.
6. When cleaning, use only a soft cloth. Keep out of contact with water or other liquids.
7. All servicing must be performed by a qualified technician, or the warranty will be voided.
8. Unplug power cord during severe lightning or when unused for a long period of time.
9. Unplug the device from the outlet only after completely turning off the unit.
10. Always turn the power off before connecting or disconnecting any cables.

Please note that hard drives can break down. It is important to back up your music collection periodically to a separate memory device. In the event of drive failure, TVLogic is not responsible for any loss of data. The drive manufacturers will only replace faulty drives under warranty and do not compensate to any loss of data.

## Positioning

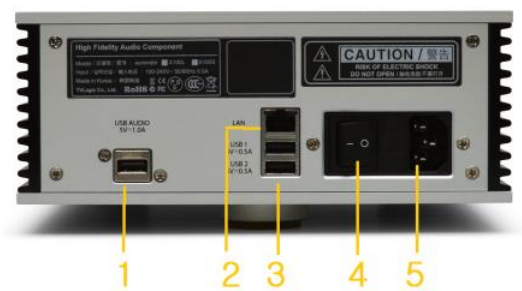
1. Place your device on a flat, horizontal, and stable surface.
2. Keep away from heat sources, such as radiators.
3. Do not stack other products on top of the Aurender.
4. Allow space around the device for ventilation.
5. Do not place inside an enclosed cabinet.

# Front Panel




1. **On/Off/Standby** - In the default mode, pressing will power the unit on and completely off. In the Standby mode, pressing the front panel button will put the unit into standby, and the unit will turn on instantly. In standby mode, to turn the unit off completely, keep the front panel power button depressed until the button light begins to flash and then release. Flashing will stop when the unit is off. To switch to the Standby mode, go to the Server Menu under Settings of the Aurender iPad application. Scroll to the bottom to find the Standby On/Off button.
2. **Display Menu** - Press to cycle through 2 display options: Song Information and Playlist. Songs from playlists may be selected using the four buttons on the right side of the front panel display. Use buttons 4 and 5 to scroll between playlists and button 2 to select a playlist. After the playlist is selected, press button 2 again to start playback. Once the playlist is selected, buttons 4 and 5 buttons can be used to select songs within the selected playlist. To see the Device Information Display, please keep the button depressed for about three seconds until the display blinks, release the button and wait. The Device Information Display with details about Server name, LAN/Wi-Fi status, IP address, and other details will appear. To return to the normal display, press the button again.
3. **Play/Pause** - Press to start or stop playback.
4. **Play Next** - Press to skip to the next track.
5. **Play Previous** - Press to skip to the previous track.
6. **AMOLED Display** – To set display mode options, please go to Settings of the Aurender iPad App.

# Rear Panel




1. **USB Audio Class 2.0 Output** - Connect to the USB input of a USB compatible digital-to-analog converter.
2. **Gigabit Ethernet port** - To connect to home networks and NAS devices. The Ethernet cable should be connected to the network router before turning on the Aurender.
3. **USB 2.0 data ports** - For copying from external USB memory devices.
4. **AC Power Switch** - Press top to turn on, bottom to turn off. The rear panel power switch should be used, only after the unit has been turned off completely. Abnormal shutdown or using the rear panel power button while the unit is in operation or standby can cause the system to to into check mode. In this case, a message will appear on the display stating that the unit is checking the system.
5. **AC Power Socket** - Connect to a power outlet with AC Power cord.

# Quick Start

## 1. Connections

Connect the AC power cord to the AC socket on the rear panel (5) and power main using grounded sockets and plugs. Do not turn on the power.

Use an Ethernet cable to connect the Ethernet port on the rear panel (2) to the router. The router should be connected to the Internet and computer, in order to receive updates and conveniently transfer files.

Connect the USB digital output on the rear panel (1) and connect it to a DA converter or an amplifier with a USB digital audio input.

Always make sure that all devices are grounded before making any connections. This should be done by connecting the power cords using grounded plugs and grounded sockets. In addition, all devices should be turned off. If the devices are not grounded, a voltage potential difference between devices can cause a voltage surge through the digital cable that can weaken and eventually damage sensitive circuits in D/A converters and other devices.

## 2. iPad Application Installation and Set Up

Using the iPad, go to the App Store and type Aurender in the search window. Install the Aurender application. The Aurender supports WAV, FLAC, Apple Lossless (ALAC), AIFF, APE and other formats.

## 3. Selecting the Aurender Music Server

Open the Aurender application and the Aurender Music Server will be shown on the **Server** menu. The Aurender must be connected to the Internet and iPad.

Select the Aurender Music Server by tapping its name.
If no server is listed, tap Add Server at the bottom of the window and a window will appear asking for the IP address. The IP address can be found by pressing the Display Mode button on the front panel (top left) and keeping it depressed until the front display changes. Release the button. Find the IP address and enter. To return the display to the normal mode, press the Display Mode button again.

## 4. Enter Passcode

Please enter the Passcode shown on the front display of the Aurender.

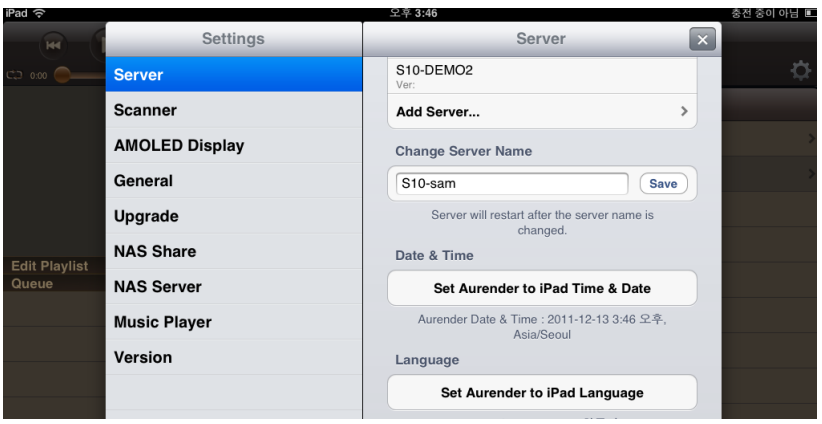
## 5. Manually Checking for Upgrades

Check for the newest version of the firmware and Upgrade to the new version, if needed.

After upgrading, the Aurender will reboot automatically. At this time, the iPad application needs to be closed and restarted in order to be upgraded also.

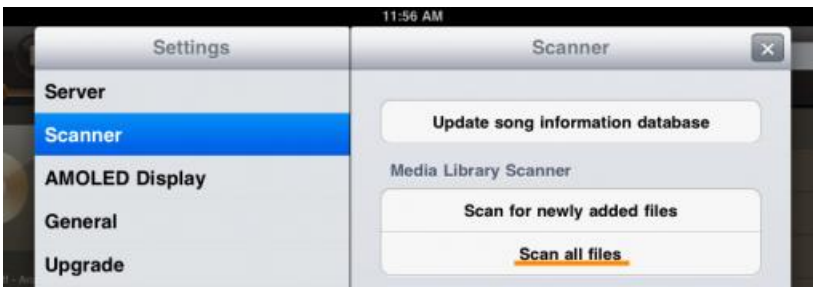
## 6. Setting Time and Language to iPad settings

Time and Language can be set by using the menu at the bottom of the **Server** tab.




Aurender's time and language should be set to the iPad time and language settings.

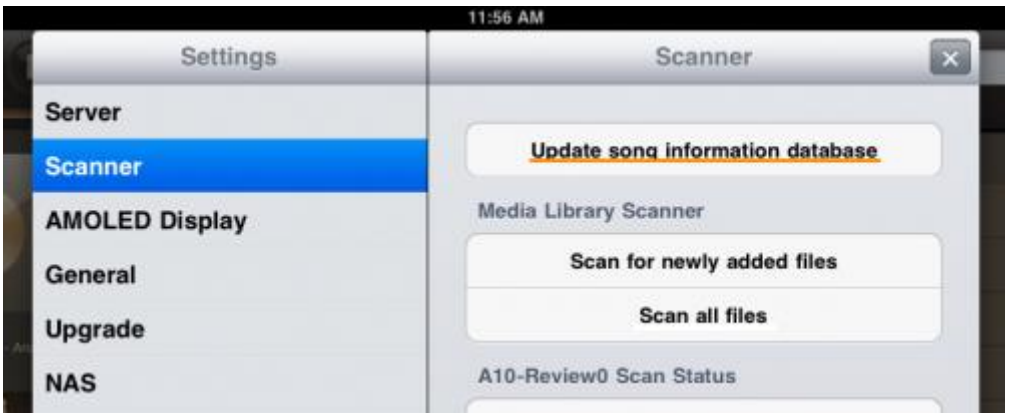
## 7. Scan all files using the Scanner menu.




Scanning will continue in the background, even when songs are selected and played. Please note that it can take hours to scan large libraries.

After scanning is done, a pop up window will appear stating that the database is being downloaded. If the download fails to finish or gets stuck, please move closer to the wireless router and press Update song database. The time to download the database varies according to song database size and wireless connection speed between the wireless router and the iPad. It can be a few seconds or a few minutes.

**Note :** When new files are added, the Aurender needs to scan the HDD and make a new database. When the song database is updated after scanning, the iPad needs to download it. So, even though one song is added to the 50,000 songs database, the iPad needs to download whole database, but it should take less than a minute.




## 8. Copying Files to the Aurender

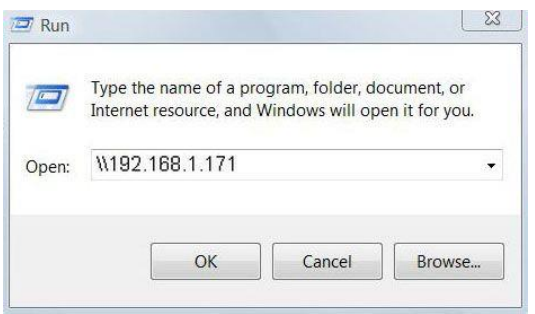
There are three ways to copy files to the Aurender's HDD.

1. Use the Ethernet connection to copy files to the Aurender using a PC or Mac.
2. Connect a USB memory to the USB port on the rear panel.

**Note** : After song files are copied to Aurender, new songs will appear, only after the files are scanned and the song database transferred to the iPad application. Files will be scanned automatically one minute after additions or changes to the files.

**PC Users**

1. Press the Windows + R on your keyboard (START -> RUN).

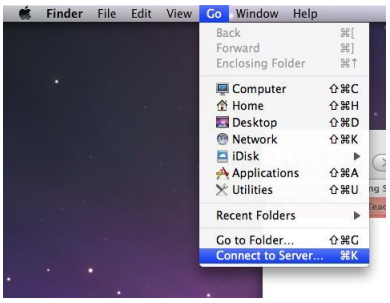



2. Type in  two back slashes (\\) and the IP address of the Aurender. (For example: \\192.168.1.171). The Aurender IP address can be found in NAS under SETTINGS on the iPad application.
3. Click OK and a window will appear with a folder labeled 'hdd1'. Open the folder.
4. A popup window will ask for a Username and Password. They can be found in NAS under SETTINGS in the iPad application.
5. Drag and drop files in to hdd1 or in its sub-folders.
6. Sub-folders may be created, renamed, or deleted.  To add a sub-folder, right click on the white space and go to New -> Folder.

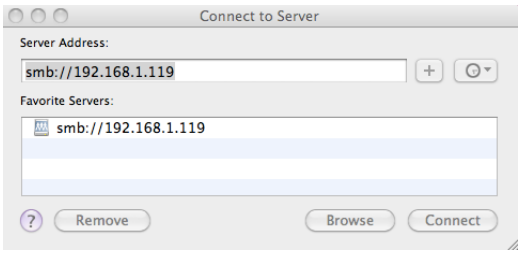
**Note**: Importing large libraries can take a very long time, so importing files in batches is recommended.

**Mac Users**

1. Locate the Finder menu bar at the top of your desktop.
2. Click GO -> CONNECT TO SERVER from the navigation bar.




3. Type in ‘smb://’ followed by your Aurender’s IP address. (For example: smb://192.168.1.171) The IP address can be found in the iPad application under SETTINGS -> NAS.




4. Click Connect and a window will appear with a folder labeled ‘hdd1’. Open the folder.
5. A popup window will ask for a Username and Password. They can be found in the iPad application under SETTINGS -> NAS.

Note: If the Aurender is connected through a Gigabit network, the transfer speed will be roughly 50MB/sec. It could take 5-6 hours to copy 1TB of files. We recommend copying files in batches. The Aurender is able to play back music and copy files simultaneously

## Copying from USB Memory Devices

Insert a USB memory device already loaded with songs into USB port on the rear panel. In a moment, the front display will show ‘USB Copying’. When all files have been copied, the display will blink ‘USB Copying Done’. If the folder names are the same as the categories in the Aurender second row (All, Classic, Jazz, Pop, Local), then the files will go into the respective folders. If the folder names are not the same, then the files will go into Etc.

## Copying from USB CD-ROM Drives

Connect a USB CD-ROM Drive to the USB ports and the Aurender will automatically rip the CD to the HDD and tag songs with information from an internet database. The quality of conversion is as good as EAC and other leading conversion software. However, please be advised that the song metadata on Internet databases are often incorrect and need to be checked and edited.

It is much easier to edit song metadata using a PC or Mac. When using a leading converting software such as dbPoweramp or Exact Audio Copy, there is no loss of data when files are converted from CDs to uncompressed or lossless format. This is because the original data and the recorded data are compared until they are exactly the same.

# Aurender iPad Application

1. **Browser Buttons** - The top row buttons categorize songs according to the metadata of the the song file. Tap Song, Artist, Album, Genre, Composer, or Conductor to browse through songs according to the file meta tags. Or tap Folder to browse folders. Five of the second row buttons categorize songs according to the folders on the Aurender Hard Drive. Excluding the “All” and “Misc” buttons, the other buttons are named according to the folder name. The folder names may be changed by the user by changing the folder name and enclosing it with square brackets - [foldername].
   Since the X100L has two hard drives, five folders on each of the HDDs will be shown in the second row browser buttons**. To see the other set of five browser buttons for the other hard drive, s**wipe the second row browser buttons to the left or right.
2. **Smart Search Window** – Type in artists, albums, genres, composers, conductors or file names and the search results will appear as you type. To search numbers, an asterix(*) or a question mark(?) needs to be added after the number you are searching for in order to get a valid search result.
3. **Settings Icon** - Press to open Settings menu
4. **Quick Scroll Bar** - For faster navigation, just tap a number or letter to jump to content starting with that number or letter.
5. **Contents Window** - Scroll through content by flicking up or down. For faster navigation, use the quick scroll bar on the right hand side. Just tap and scroll to jump to content starting with that number or letter.
6. **Queue Window** - Press any song in the contents window to add it to the queue. If you want to play a song immediately, add it to a playlist, or find similar songs, long press the song in the contents window and pop-up menu with these options will appear. Expand the Queue window by flicking the contents window to the right. There will be a Consume button on the bottom. Consume On will delete songs from the queue as they are played. To clear all songs from the queue except for the currently playing song, long press the CLEAR button on the bottom and a “Clear all except for currently playing song” will appear.
7. **Edit Playlist Window** – Press the Edit Playlist bar to expand. To edit playlists, press the blue arrow next to the playlist name.
8. **Song Information Window** – To expand, flick the contents window to the right.

# Playback Functions

**Queue –**To add songs to the queue, tap a song in the Contents Window and it will be added to the queue. The selected song will be marked with a small arrow. Subsequently selected songs will be added to the end of the queue. For the full queue view, flick the Contents window to the right. This will also reveal an Edit button. To return the Song Contents window to original size, flick the screen to the left.

**Instant Play -** To instantly play a song, tap on the left hand margin of the song you want to play. An arrow will appear next to the song title. The selected song will appear below the song that was last played.

**Deleting songs from queue -** Lightly flick the song title to the left or right, then tap. Delete

**Clearing the queue -** Simply tap ClearAll at the bottom of the queue. All songs will be deleted except for the song that is currently playing.

To completely empty the queue, pause the current song, then tap ClearAll once or tap ClearAll twice.

**Editing the queue -** Swipe the contents-view pane to the right for the full queue view and tap edit. To rearrange the order of play, locate the 3 horizontal stripes to the right of the song title. Touch and hold the stripes and drag up or down.

# Playback Controls

**Other playback options -** For more options, touch and hold the title of a song in the Contents window and a blue pop-up screen will appear with Play Now, Add to Next, Replace Queue and Add to End menus.

**Play Now**- Selected songs are added to the queue to be played right now.

**Add to Next** – Selected songs are added to the queue to be played after the current song

**Replace Queue** – Clears current queue and replaces queue with selected songs

**Add to End** – Selected songs are added to the end of the queue.

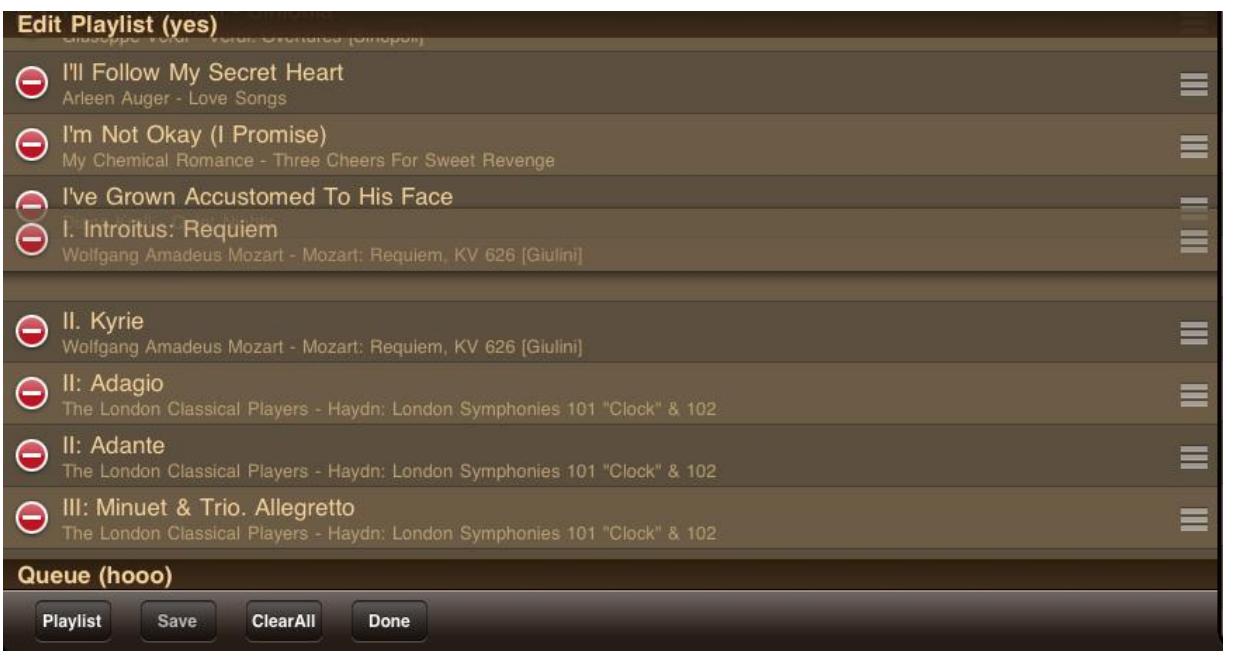
The touch and hold function also works for specific artist, album, genre, composer, conductor, index bar, or even categories. 500 is the maximum number of songs possible in a queue or playlist. Only the first 500 songs will be added, if the selection contains more than 500 songs.

# Playlists

**Saving Playlists** - Once you have added one or more songs to the queue, tap Save at the bottom of the queue window. Type in the name for the playlist and then tap the “save” button.

**Viewing Playlists -** To see playlists, tap Playlist on the bottom of the screen. Tap a playlist and the songs will appear in the queue and start playing.

**Editing Playlists** - Tap Playlist at the bottom of the screen. Then, tap next to the title of the playlist you wish to edit. A Playlist window will open. When the Edit Playlist window is open, songs selected from the Contents window will be added to the Edit Playlist window, not the queue window, so that adding, rearranging, or deleting of songs in the playlist can be done without interrupting playback of the current queue. In the Edit Playlist window, playlists can be rearranged, deleted or added to. To rearrange songs: From your playlist, tap Edit . Touch and hold next to the title of the song, then drag and drop.


Edit Playlist (yes)
I'll Follow My Secret Heart
Arleen Auger - Love Songs
I'm Not Okay (I Promise)
My Chemical Romance - Three Cheers For Sweet Revenge
I've Grown Accustomed To His Face
I. Introitus: Requiem
Wolfgang Amadeus Mozart - Mozart: Requiem, KV 626 [Giulini]
II. Kyrie
Wolfgang Amadeus Mozart - Mozart: Requiem, KV 626 [Giulini]
II: Adagio
The London Classical Players - Haydn: London Symphonies 101 "Clock" & 102
II: Adante
The London Classical Players - Haydn: London Symphonies 101 "Clock" & 102
III: Minuet & Trio. Allegretto
The London Classical Players - Haydn: London Symphonies 101 "Clock" & 102
Queue (hooo)
Playlist
Save
ClearAll
Done

To delete songs, flick the song title to the left or right, then tap “Delete” .
Save your changes by tapping “Save” at the bottom of the queue. To rename a playlist, type in a new name and tap “Save”.

Tap the Queue bar to expand the Queue window.
Tap the Edit Playlist bar twice to expand the Edit Playlist window.

**Deleting Playlists -** To delete a playlist, tap “Playlist” at the bottom of the queue, flick the playlist name to the left or right, then tap “Delete”

## Album Cover View

**Large Album Cover View -** To see a close-up of album covers, tap the album icon just below the playback controls. Covers are usually downloaded from an online database by your CD ripping software. Users may also scan front and back covers and see them on the iPad application. Flick right or left to view the front and back covers.

**Adding Scanned Album Photos** - Scan CD album cover artwork (1600×1600 is recommended) and name the files “front.jpg” for the front cover image and “back.jpg” for the back cover image. Copy these two files to the folder where the album songs are located.

Aurender searches for album covers in three ways. First, it searches for the front.jpg file. If there is none, then it searches for the folder,jpg file. If there is none, then it will search for the album cover according to song meta-tag information.

**Album Cover View Options -** Tap in the Album Cover to see viewing options.

**Album Track List and Queue** - To view the track list, tap on the lower right part of the screen. Songs selected from here will be sent to the end of the queue.

Toggle between the track list and queue by tapping

on the bottom of the screen. Please not e that Queue cannot be edited while in cover view.

**Return to Album Cover -** To return to the album cover, tap the album icon at the bottom right of the screen.

**Exit Album Cover View -** To exit album cover view, tap the arrow on the bottom left of the screen.

# Technical Specifications

| Model | Aurender X100L | Aurender X100S |
|---|---|---|
| **Compatible Formats** | DSD* over PCM (DSF, DFF)<br>AIFF, ALAC, FLAC, WAV, M4A, APE and others | |
| **Bit and Sample Rates** | **SPDIF:** up to 24-bit, 192kHz (PCM);1-bit, 2.8MHz (DSD64)<br>**USB:** Depends on the DAC specifications (PCM);<br>1-bit, 2.8MHz (DSD64); 1-bit, 5.6MHz (DSD128) | |
| **User Software** | Aurender App for iPad/iPad Mini* | Aurender App for iPad/iPad Mini* |
| **Display** | AMOLED | AMOLED |
| **Hard Drive** | 2 x 3TB or 2 x 4TB | 1 x 1TB (2.5 in) |
| **Solid-state Drive** | 120GB | 120GB |
| **Digital Audio Output** | Custom USB Audio Class 2.0 | Custom USB Audio Class 2.0 |
| **Digital I/O** | 1 x Gigabit LAN, 2 x USB 2.0 | 1 Gigabit LAN, 2 x USB 2.0 |
| **SMPS** | 100W | 100W |
| **Main Memory** | 4GB | 4GB |
| **CPU Board** | Proprietary design | Proprietary design |
| **Dimensions** | 215mm x 83mm x 355mm | 215mm x 83mm x 257mm |
| **Weight** | 7.5kg | 5kg |

Specifications are subject to change without notice.

* iPad and iPad Mini are trademarks of Apple Inc

* DAC must support DSD over PCM (DoP) version 1.2
  Supports only uncompressed DSD (No DST)

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